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**Anthony J. Suter, Jr.**

**2008**

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grafted hymnologies

Committee:

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Dan Welcher, Supervisor

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Donald Grantham

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Byron Almén

---

Edward Pearsall

---

Andrea Gore

# grafted hymnologies

by

Anthony J. Suter, Jr., B.M.; M.M.

## **Dissertation**

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# **grafted hymnologies**

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Anthony J. Suter, Jr., D.M.A.  
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Supervisor: Dan Welcher

The work *grafted hymnologies*, a piece for chamber orchestra, explores connections between twentieth century formalist compositional techniques and formalist techniques of pre-tonal music. This document, which accompanies the score for the piece, provides an analysis of the work that explains the various techniques and their application to the music.

This piece is composed in five large sections. The work pairs compositional techniques associated with pre-tonal music from those of twentieth century modernist music. For example, the second section employs the Medieval idea of tropes-- each time the melody is repeated, new melodic material is added, in the style of the elaborations to the Gregorian repertory that were common as early as the tenth century. This is paired with a single pitch class drone that evolves by timbral modulation, a technique influenced in part by Schoenberg and carried out exactly by Elliot Carter. Each section contains a similar pairings, which are explained in detail herein.

That these kinds of pairings could co-exist in a single piece seems natural; certainly, the intricate formalism that appeared in some Western concert music before 1600 exhibits a certain degree of aesthetic concurrence with the formalist music of the early to mid- twentieth century. Artistically, reaching back to the past (both near and far) and creating something new is an interesting exploration of how history can inform the creative process.

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# *grafted hymnologies: an Analysis of the Employment of Modernist and Pre-Tonal Formal Compositional Techniques*

Anthony Suter  
University of Texas at Austin

## ***Initial Considerations***

In Joseph Straus' *Remaking the Past*, the author asserts that composers of the early twentieth century shared a “preoccupation with older music and shared musical means for expressing it.”<sup>1</sup> The negotiation of music history is a difficult, if often rewarding, proposition for a composer, and Straus articulates three theories of musical influences in his work. These theories offer explanations for how music history affects and interacts with the contemporary composer and her or his artistic production. The first, the “influence of immaturity” theory, indicates a manner of using the musical past as an artistic crutch of sorts—the marker of a youthful, inexperienced artist.<sup>2</sup> The second theory, a less transgressive mode of influence perhaps, is dubbed the “generosity theory,” whereby the internalization of the artistic tradition is deemed virtuous.<sup>3</sup> According to adherents of this theory, the past, especially the canonical past, is a necessary and near-divine gift to the contemporary artist. This differs from the “influence of immaturity” theory in that the mature artist can interact with the past in a reverent, productive, and artistically meaningful manner, fully integrating the past with her or his own voice.

The third theory that Straus describes is the “theory of anxiety.” Much of his writing in *Remaking the Past* deals with this mode of influence. Straus applies this

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<sup>1</sup> Straus, 2

<sup>2</sup> Ibid., 9

<sup>3</sup> Ibid, 10

theory, from literary scholar Harold Bloom, to post-tonal composers. This theory describes the relationship of the artist with historical forbearers as one of violence, stating that the “old and new are not reconciled or synthesized but locked together in conflict.”<sup>4</sup> This idea is certainly in the consciousness of a composer—as generous as the past may be, one must make room for her or his self on a very crowded shelf. This anxiety, for Straus, explains the radical break with musical tradition in the early twentieth century.

Despite the generalities implicit in Straus’ three theories of influence, in practice it seems reasonable to assert that there are as many relationships with music history as there are composers, and a myriad of ways these relationships can affect the output of even a single composer. I would similarly contend that for many (if not most) composers, all three theories are in play at any given moment of artistic production. (I do not believe, however, from my reading, that Straus would explicitly deny this possibility.) I have chosen to begin this analysis with the preceding discussion because my work, an orchestra piece entitled *grafted hymnologies*, deals quite explicitly with the interaction of the contemporary artist and the musical past.

In this work, I attempt to allow different musical “pasts” to collide within a contemporary work. While this juxtaposition contributes heavily to the identity of the work, this pairing is less a carefully considered philosophical statement and more a musico-constructional starting point; that is, the techniques are used as tools to generate and develop the material in an aim to create an aesthetic object that I find representative of my own compositional voice. In this sense, it is my hope to have avoided the “influence of immaturity” by avoiding quotation, stylistic allusions, or any knowingly explicit musical material from the past.

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<sup>4</sup> Straus, 176

A brief explanation of the sense of the term "past" that I am using is likely warranted. The techniques borrowed from the composers and repertory of the pre-tonal era are readily enough defined as belonging to the "past." I would contend that the modernist techniques used similarly belong to the past as well— that is, my experiential treatment of the term relegates the twentieth century material to the "past"— certainly a nearer past, but a past nonetheless. Much is written about the previous generation of composers' challenge to modernist / serialist dominance in the academy— this is a battle those of my generation did not fight. Nor do I feel any particular hostility towards this music; much of the early and mid-twentieth century repertory has a significant and profound effect on my music. My affinity for this repertory aside, it is very much for me something that belongs to the "past". This is salient in that the work is not a pairing of the old and the new, but an attempt to reach back to various points of history for technical tools whose juxtapositions and combinations can inform my particular compositional voice.

As stated above, I have endeavored to avoid reaching back for influence as a crutch, as in Straus' first theory. I freely admit my affinity for the second—the so-called “generosity” theory. As a composer and beginning pedagogue, the musical past is a rich tradition for me, and one of which I endeavor to be a part. There is, however, a sense of the “anxiety of influence” as well—it is difficult to deny for most composers. Somewhere in this work, I hope, a balance is struck that allows the past to inform the work while still be wary of the need for a strong, carefully considered contemporary voice.



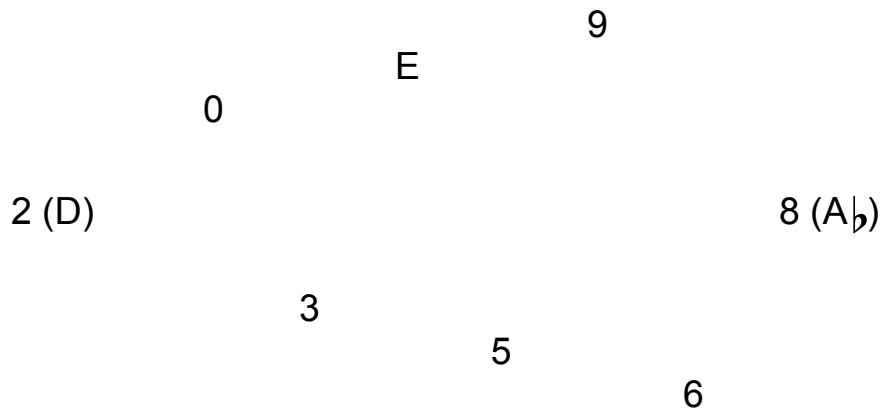
## **Analysis**

The analysis presented here is focused primarily on the techniques from the past that have informed the organization of the material. I have not, however, totally exorcised any discussion of salient musical points outside of these techniques. The analysis is intended to illuminate the overall musical and aesthetic project through the formal, constructional analysis that ensues. (NB: This document is intended to accompany the score; as such, I have included only musical examples which are not present in the score. At all times, measure numbers are given for events and structures discussed in this analysis).

### **Section I (mm. 1 – 45)**

This work begins with a swelling of percussion through ten beats, getting louder and driving towards the downbeat of m. 3, where the strings begin a pedal point on D. The pedal point, which extends throughout the entire first major section, serves as a plane in musical space around which the subsequent pitch material operates. This section is constructed with a great deal of control over the pitch material. The pitches that enter in m. 3 and beyond form an octatonic “wedge” around the D pedal. This “wedge” is illustrated (in numerical pitch class notation) in Fig. 1. Note that this structure is conceived in pitch class space, *not* pitch space.

**Fig. 1, Octatonic Set Presentation (mm. 1 – 12)**



The first note of the wedge is articulated by the C harmonic in m. 3, and repeated in m. 4 by the violas. The next note of the series is Eb, which is present in the viola in m. 4 as well. Violin II has the B harmonic in m. 9, the trumpet the F in m. 11, and the series is completed quickly in m. 12.

This octatonic unfolding is not meant to be heard in real-time; rather, it serves as a compositional tool for organizing the accretion of new pitches to the musical space. It is a very fast progression in that the whole set is presented by m. 12, with disparate distances between new pitches in the series. More salient, and certainly more audible, is the change from one octatonic set to another at m. 18. This change from the D-Eb-F-Gb-Ab-A-B-C set to the set D-E-F-G-Ab-Bb-Cb-Db coincides with the dramatic thrust of the music. The motive first presented in the violas in m. 4 becomes the subject of a polyphonic treatment in the woodwinds in mm. 13 – 17, which is set against the quarter-tone inflections in the thickening string texture. Combined with the striking *forte* solo trumpet, these elements constitute a punctuation of a smaller formal unit that coincides with the pitch collection shift.

The music for the brass in the section starting at m. 18 is related to the contrapuntal treatment discussed above. As before, the polyphonic treatment is akin to

the concept of “micropolyphony”. The subsequent statements are close canons at the unison, overlapping and interacting to an almost cacophonous effect. This polyphonic music builds to the unison B at the downbeat of m. 23, present in all active voices except violin II and bass, which carry the D pedal.

The unison B at m. 23 signals a change back the original octatonic set. The B/Bb play serves as a marker of which octatonic set is being presented (you will remember that before, the change of set was heralded by the first trumpet's Bb). The brass motive is now taken by the strings in a dramatic three octave doubling; at this point, the rhythm becomes a place of tension in the work. At the beginning of the piece, the strongly duple division of the beat was established emphatically by the percussion (especially the eighth notes in m. 2). The contrapuntal brass motive relies heavily on triplet eighths that serve as a counter to the duple division, which is continued into mm. 23 - 28 in the strings. The rhythmic tension between the two is intensified at m. 29, where the long, sustained pedal notes become a percussive sixteenth note ostinato. The asymmetrical divisions between the motivic material (in mostly triplets) and the pedal point (now in sixteenth notes) is intended to serve as a logical extension of tensions presented at earlier points in the section.

The most dramatic, climactic section of the first 44 measures begins at m. 29; the rhythmic play discussed previously becomes even more complex at m. 31. The brake drum and trombones have a rhythmic figure that corresponds to the open string notes in the string section, and has the function of being a syncopation of the triplet motive. As this section continues, the purity of the octatonic set begins to dissolve, as the secondary set (the D-E-F-G-Ab-Bb-Cb set) infiltrates the original set. The first instance of this is

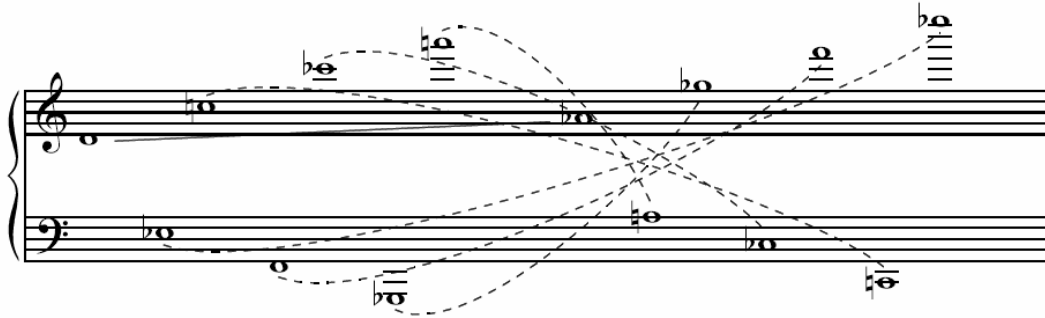
the figure in m. 33 in the tuba— this seems especially shocking, in that the competing set is placed in such a low, loud register. The horns quickly follow suit, and as the rest of the brass drop out in mm. 35 - 36, the four horns pit both sets against one another in a tight contrapuntal fragmentation. This oppositional approach to the octatonic sets is also highlighted in the strings in this section— m. 33-34 feature a great deal of play between the Bb and the B. After m. 29, before the Bb, the string line consists only of pitches from the original octatonic set.

The low brass chords in m. 37 are a surprising end to the climax that began in building in m. 29; the C-D-Eb sonority in close position is certainly striking. The pitches here quite directly refer not only to the original octatonic set, but also the "wedge" idea that governed the presentation of the pitches at the outset; that is, the C and Eb here form an enveloping structure around the D, but this time in pitch space rather than pitch class space. This gives way to the chord in m. 41— a large, swelling, massive sonority that is very meticulously voiced and constructed.

The chord in m. 41 confirms the primacy of the opening octatonic set. It contains all of the pitch classes of the set, and the individual pitches are arranged systematically in pitch space. The opening wedge was used, beginning on D, and the pitches were placed to again represent the wedge, only this time, in pitch space (rather than before, which was only in pitch class space). This is, however, a “double-wedge” of sorts. The pitches are placed, according to the wedge in Fig. 1, in pitch space so that each pitch in the set is aligned with the shape of the wedge (that is, that each pitch in the upper part of is higher than the previous and that each pitch in the lower part of the wedge is lower than the previous). The set is interrupted by the last pitch of the set, the Ab. Here, the wedge

begins anew, using the last pitch of the set as a transpositional axis. This creates pairs of voice exchanges between the upper and lower parts of the wedge, as shown by the dotted lines in Fig. 2. The resultant chord is shown in reduction in Fig. 3

**Fig. 2, Pitch Space Distribution of Octatonic Set in m. 41**



**Fig. 3, Single Staff Reduction of m. 41**



In addition to the technical discussion above, it is worth commenting on the overall musico-dramatic structure of the ending of this section. The surprising chords in the low brass in m. 37 are intended as an almost Stravinsky-like "cinematic cut"-- a dramatic interruption that stops the eruption that began boiling in m. 29. This

interruption is punctuated by the long rest on the last beat of m. 40, which provides a moment of preparation for the massive chord in m. 41. This chord, which swells from very soft to very loud and back again, sets up the repeat of the percussion figure from mm. 1 - 2, this time presented in a conceptual (though not notationally exact) retrograde. The percussion return, the chord in m. 41, the long rest and the low brass chords constitute an large scale interruption that simultaneously serves to effectively transition to the next large scale formal unit.

Before discussing the next section, I would like to point out the bit of numerological interest that is at play in this opening section as well. Like many pieces across the repertoire, and especially in twentieth century and pre-tonal music, numerological games and significances are present. Taking a page from pre-tonal composers, this piece employs the concept of gematria. Gematria is a process by which letters are given some kind of numerical values, most often by alphabetic order. The sums of these numerical values are often added together into an integer value for a particular word. This is somewhat the stuff of legend, as a fairly romanticized narrative exists as to the use of gematria for pre-tonal composers to make subtle gestures towards unattainable romantic interests. In his book, *Renaissance Music: The Music of Western Europe, 1400 – 1600*, Allen Atlas writes that “hardly anything so irks symbolism skeptics as claims that the structure of a composition is determined by number symbolism, especially when the symbolism involves gematria.”<sup>5</sup> In my work, the gematria is less salacious, and certainly less controversial. I have taken my name (Anthony Suter), and assigned each letter a value based on alphabetic position (A=1, S=19, etc.) The sum of all of these values is 180; there are 180 total beats in the first section (from the beginning

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<sup>5</sup> Atlas, 283

to m. 45). The use of names in tandem with gematria has historical precedence; in 1423, Guillaume Du Fay used the technique to ensure that his work *Resvilles Vous* contained 73 breves—the 73 corresponding to the maiden name of the bride at the wedding for which the chanson was commissioned<sup>6</sup>.

While this use of gematria is purely an academic endeavor, this kind of "beat counting" awareness did bring to my attention that the so-called "Golden Section" happens right around m. 29, which is the point at which the D pedal that is constant throughout the entire first section moves from sustained notes to the more intense sixteenth note motion. This also makes a nice pairing of the gematria (a pre-tonal device, if a somewhat dubious one) with the conception of pitch materials as octatonic sets (a kind of formalist construction readily identifiable in Bartók)—the "Golden Section" aspect is something that envelopes both the gematria and the tangential reference to Bartók.

## **Section II (mm. 45 - 83)**

Section II offers a distinct contrast to the music of the previous section, and involves the pairing of two distinct formal techniques, one from the pre-tonal repertoire and one from the modernist. The early music technique employed in this section is the idea of the trope. A trope is an elaboration of a work, usually used to describe a particular kind of addition to the Gregorian chant repertoire towards the end of the first millennium. A trope could involve adding new text to a long melisma or new music to create a melisma in an extant chant<sup>7</sup>.

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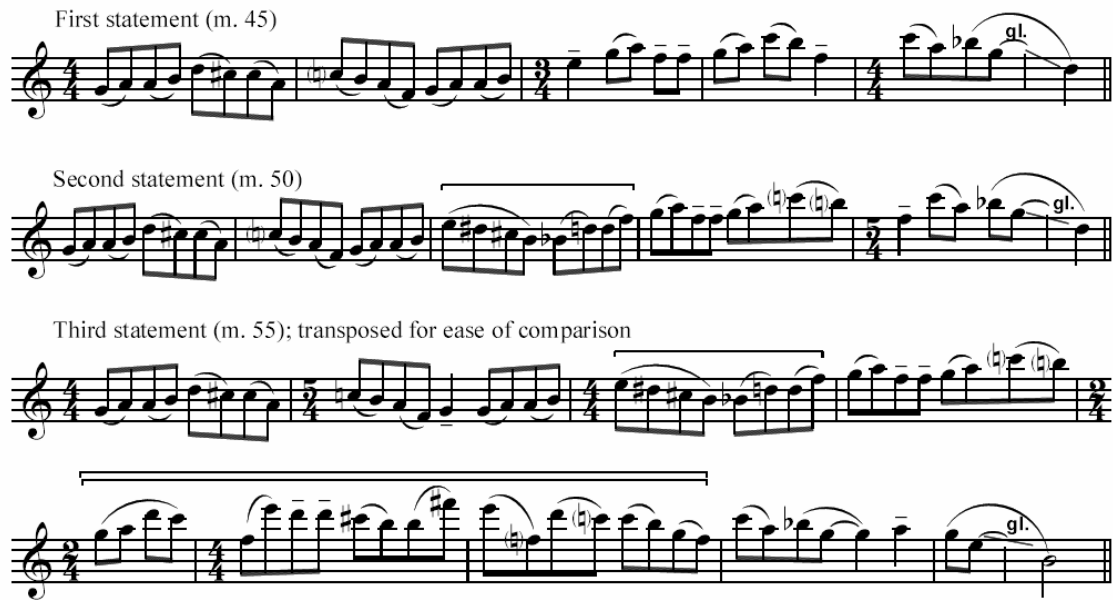
<sup>6</sup> Atlas, 59

<sup>7</sup> Yudkin, 206-10

These elaborations happened over a good many years, with new text and music being added part by part. In this work, this process happens across a small amount of time as a developmental technique in the piece. This is also akin to the idea of a “spiral variation”, a type of variation in which the theme is extended temporally with each variation. The tune itself, a modally derived, lyrical melody, is presented, then repeated with an elaboration. This first elaboration is four beats, comprising all of m. 52. The E in m. 46 of the first statement serves as the juncture of the repeated material and the new material. In the second statement, the E is followed by a D#-C#-B figure paired with an arpeggiated Bb major triad. After this new material, the melody picks up where it left off, mapping on to the original statement. The third statement adds even more material, further elongating the melody. Fig. 4 provides a side-by-side presentation of how these accretions work. Note that the third statement, which begins in m. 55, is transposed up a minor third to provide some tonal contrast; in Fig. 4, the third statement is notated at the original level to provide an easier comparison (the brackets indicate new material in each repetition).



**Fig. 4, Elaborations of Melody (Tropes) in Section II**



The subsequent statements of the melody proceed much in the same, eventually building to an intense climax in m. 71, where violin I and viola extend to the highest note of the passage, marked with a *tenuto* indication. The original melody does not hold through the last statement (though motivically it is very similar), as the music gives way to a transition that ends this section and brings the music to the next. This transition begins in m. 73, with the strings descending all the way down to the open G string.

The other technique involved in the construction of this section pertains to the constant G pedal, first in the woodwinds, and eventually in the brass. This pedal employs the idea of timbral modulation—in this case, a single pitch that is given several different orchestrational treatments to change the sound over a long period of time. This technique is most readily identified with Elliot Carter's *Eight Etudes and a Fantasy* for woodwind quartet. This section is something of an homage to Carter, in that the pitch that is subjected to the timbral modulation is G, the same pitch used in the seventh movement of

his piece (that the woodwinds, and in particular the flute and clarinet at the beginning, begin the timbral modulation is no small coincidence either.)<sup>8</sup>

It may be worth noting that timbral modulation is often confused with Schoenberg's concept of *Klangfarbenmelodie*. Alfred Cramer's essay dealing with the concept asserts that Schoenberg's conception of the term was more acoustically based than orchestrational—that true *Klangfarbenmelodie* involves a musical logic (akin to the complete musical logic of the tonal system) based in the subtle changes in the highest partials<sup>9</sup>. Schoenberg himself wrote only fleetingly about *Klangfarbenmelodie*, in which he espouses a view similar to the one laid out by Cramer.<sup>10</sup> The phrase “timbral modulation” comes from Alfred Schnittke, and describes most aptly the process that takes hold in Section II of my work.<sup>11</sup>

The timbral modulation is organized loosely around a desire to have the sound become more intense as it proceeds in time. At the beginning, the pedal is given to two woodwinds, which trade off in pairs until m. 56, where three instruments are used. This continues until the brass are added to the timbral play in m. 64. The first brass instruments to enter are the trumpet and horn. The trumpet is unmuted, but the figure passes off to the other trumpet player, who has a straight mute. Trombone I enters, also with a straight mute, and upon the subsequent entrance of the trumpet, the player has inserted a harmon mute. The opening and closing of the harmon mute provides a dynamic timbral change in a shorter period of time. By m. 70, both the trumpet and trombone have harmon mutes, and the opening and closing is offset to provide the

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<sup>8</sup> Carter, 20

<sup>9</sup> Cramer, 1

<sup>10</sup> Schoenberg, 78

<sup>11</sup> Schnittke, 103

greatest amount of timbral contrast. Once the climax has fully happened, the timbral modulation does a quick reversal, in the trumpets, ending with a single note, unmuted (in m. 83). Though not an exacting organizational concept, I think that one can hear this timbral intensification, even if no spectral analysis has been done to confirm which timbral combinations are empirically “more intense”.

The rhythms in these timbrally modulating parts and the percussion are quite lapidary. The idea behind these somewhat complicated rhythms is to avoid the percussion or pedal notes lining up with events in the melodic line. These accompanimental structures are intended to “float” outside of the regular eighth note pulse. The use of triplets, entrances on sixteenth note values, etc. is a trick to ensure that these events will sound almost out of the tempo. This is highly desirable given that the pulse is so strongly regular in the melodic line.

The harmony in the strings in the section follows a very simple, yet effective procedure that I first encountered in Frederic Rzewski’s work *Coming Together*. This work contains several controlled aleatoric elements, though the instructions for performance indicate a very exacting manner in which the harmony is created. There is a given melodic line, and players can only play the line in tempo. Performers can, however, stop and hold any note for any duration, but when any player change notes, he or she must play the note that is in the line at that given moment<sup>12</sup>. The effect is one of putting a damper pedal on certain notes in the melody, and deriving the harmony only from pitches that have sounded in the melody. A modified (i.e., less strict) version of Rzewski’s technique is used to derive the harmony and counterpoint in the string line in this section. The pitches present are those that have been played in the melodic line.

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<sup>12</sup> Rzewski, 1

This allows for a certain sense of natural outgrowth of the harmony from the melody, which pairs conceptually well, I think, with the trope idea that is also set into motion in this section. The following musical example illustrates the way in which this relatively simple approach to harmony plays out in the beginning of Section II.

**Fig. 5, Melodic / Harmonic Pairings, with Reduction, mm. 45 – 49**



Much like the slow changing of the timbral qualities in the pedal point, the transition to Section III plays out over several bars. Once the strings join the G pedal, the trumpets slowly die away, and the chimes articulate the G in uneven triplets. The melody, now ornamented freely, is heard in the solo oboe beginning in m. 76. As the oboe holds our attention, the open G string drones give way to shimmering, sustained harmonics in the bars before m. 82. The oboe works its way down, bringing the previous section to a close. The newly emergent harmonics tie over to the beginning of the next formal unit, which begins in m. 82 (marked with a double bar and new tempo information).

### Section III

Section III is perhaps the most formalist in construction—the entire sixty-five measure unit is a large mensuration canon. Unlike simpler canonic constructions which involve a discrete musical unit (often a kind of *cantus firmus*) that is set against a repetition of itself at a certain time interval, a mensuration canon is set against repetitions that have different rhythmic values. This could be as simple as a cantus firmus being set against a version twice as fast. This is an example of proportional diminution (in the preceding example, 2:1), the organizing concept and basis for all types of mensuration canons.

Canonic writing has a long history in Western concert music, and mensuration canons are certainly a part of the larger contrapuntal history. From the late 15<sup>th</sup> century, Ockeghem's *Missa Prolatium* involves an incredibly deft handling of multiple mensuration canons,<sup>13</sup> as do countless isorhythmic motets from the 11<sup>th</sup> through the 15<sup>th</sup> century. This complex kind of contrapuntal writing has maintained its appeal for composers of later eras as well. In this sense, this technique belongs to multiple epochs in music history, and seems fitting in a piece such as mine.

The mensuration canon that begins in m. 82 of my work employs proportional diminution of the order 5:3:2:1. The musical material is not just a single line, but rather a chorale that oscillates between quartal / quintal harmonies (representing a borrowing, in some sense, of harmonic elements that were widely experimented with during the early twentieth century and beyond) and triads. The chorale is not a *soggetto cavato*, nor does it contain any melodic or harmonic materials from extant works. The chorale, which

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<sup>13</sup> Atlas, 153

serves as a *cantus firmus* of sorts for the mensuration canon was written originally in values that correspond to the integer “2” in the 5:3:2:1 proportional scheme (see Fig. 6). This is the most apparent presentation—i.e., the presentation that sounds undeniably like a chorale (due not only to the rhythmic values, but also the spacing and orchestration, which will be discussed later). As such, it is the last presentation to be heard in the section, as well as the loudest (given to the brass, beginning in m. 123).

**Fig. 6, Reduction of Brass Chorale (5:2 Prolation), Original Form**



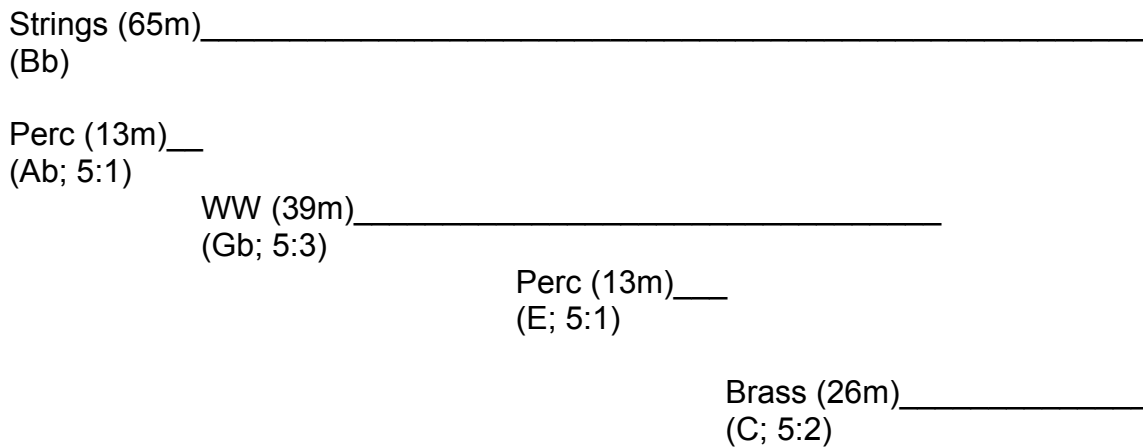
The presentations of the chorale differ not only in rhythmic values, but also in transpositions. Each presentation is in a different transposition. The strings have a transposition that is most like the key of Bb (I will refer to these chorales as “in” keys, based on the triads to which the first quintal harmony resolves and on which the chorale ends; though the chorale is not strictly “tonal” in a functional sense, the triad that opens and closes the chorale implies enough of a hierarchy that I have little quibble with using this nomenclature). This string presentation in Bb is pitted against a presentation in Ab, which gives way to the woodwinds in Gb/F#. There is another percussion presentation, this time in E, before the brass enters with the final iteration in C. This forms an incomplete whole tone scale (Bb-Ab-F#-E-C)—though the set is completed after the canon ends and the D pedal from the opening returns. This not only completes an entire whole tone set, but the final two presentations (set in E and C) constitute a “wrap around” effect around the D. This kind of voice-leading is important structurally; picking keys at random would have not had the same kind of progressive effect for the canon. This whole tone motion strongly directs the higher-level voice leading back to the D of the opening section, and further, the E-C “wrap around” recalls the “wedge” presentation of the original octatonic pitch set of the first section.

For the purpose of the present analysis, it is useful to refer to each presentation as a relationship to the longest presentation (that which is represented by the integer “5”). There is only one presentation of this version, and the presentation lasts throughout the entire section. The brass chorale (the presentation that has primacy from a musico-dramatic standpoint) is in a 5:2 relationship with this string music.

The 5:3 presentation, which is given to the woodwinds at m. 97, is centered temporally in the larger scheme. That is, there is an equal amount of space before and after this presentation (thirteen measures on either side) within this section. It follows immediately after the first statement of the 5:1 relationship, in the percussion starting in m. 82. The woodwind chorale is interrupted by another statement of the 5:1 presentation (again in the percussion). As the percussion finishes, the brass chorale begins. Harmonically, there is an interesting arrival at m. 124—as the initial quintal sonority resolves to the first C major triad in the brass, the woodwinds, though in at a different transpositional level, also arrive at a C major triad. This brief moment of congruence between the two parts at the beginning of the brass chorale is very striking, and seems to confirm the primacy I have assigned to this final statement of the chorale.

**Fig. 7, Mensuration Canon Event Map (mm. 82 – 148)**

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One small numerological note—it is no coincidence that the brass chorale enters in m. 123. Here the brass enter, giving the 5:2 diminution and interrupting the statement



of the presentation of the 5:3 diminution. The brass statement also begins in the bar immediately after a statement of the 5:1 diminution in the percussion (that is, 5:1, 5:2, 5:3), hence, measure 123.

Aside from the proportional aspects of the rhythm and placement within this section, each presentation is further delineated by spacing, chord voicing and voice leading. The brass statement has the most traditional voicing and spacing—that is, this iteration is the one most similar to a traditional chorale. The voice leading is very smooth, as one would expect in music attempting to evoke the sound of a chorale. In direct contrast are the percussion statements (both 5:1); the voice leading for these two presentations is intentionally disjunct, and the voicing wildly moves between closely positioned and widely-spaced sonorities (see mm. 88 and 90). The woodwind version (5:3) largely follows parsimonious voice leading rules, but the spacing is very close—the woodwind presentation was intentionally spaced with preferences toward the smallest distances between chord members. The string iteration is similarly constructed in close position voicings, but the spacing is very wide between the cello and bass and the upper strings—averaging around a 4 ½ octave space between upper and lower strings. Along with the transpositional scheme and obvious rhythmic changes, this variety of spacing types contributes to a sense of variation in what is, technically speaking, the same material presented five times.

#### ***Section IV***

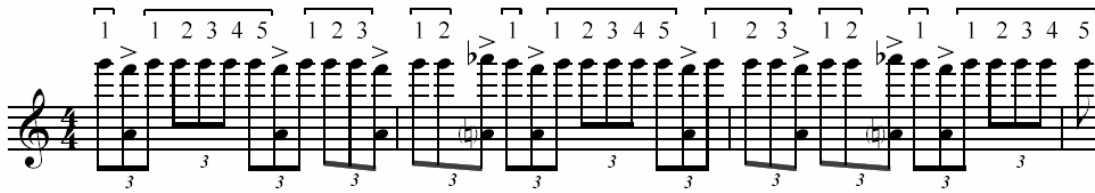
Coming out of the mensuration canon, the percussion once again serves to delineate the form division between sections. The percussion crescendo drives to the

downbeat of m. 152, where the D pedal returns. This time, however, the pedal seems less stable, owing to the constant weaving of the pedal in and out of different instruments, the tremolo, and moving quickly between normal string tone and *sul ponticello*. Right away, the brass music from the opening is recalled by the bassoon and bass, replete with the original octatonic set. This section is very obviously a recapitulation of the opening section, and moves through material very quickly. The changes in texture and motivic attention are even faster than in the first section, and the two octatonic sets from Section I are pushed together, as in m. 161, where the strings have the brass motive centered around the original set which is accompanied by a figure using pitches from the other set in the bass, violin II, tuba, timpani and bassoon. By m. 168, the two sets are stridently pitted against one another (one in the strings and one in the brass).

The sudden disconnect in m. 170 (whereby every instrument drops out but the second violins, which have a triplet ostinato figure) serves to impede the recapitulation of the opening from finishing. This interruption prepares the next event, which is the return of the chorale music, this time in the woodwinds (m. 171). The trace of the opening remains, however, as the violin ostinato emphatically articulates the triplet division of the beat, a small portion of the octatonic set (the F-G-Ab embellishments that begin in m. 173), and the gesture of the open string, widely spaced double stop that was present in mm. 31-36). The chorale music does not hold, though—from underneath the soaring woodwind choir comes the modal tune from Section II, still accompanied by the triplet figure. The triplet figure itself takes on something of Section III at m. 173. The octatonic inflections mentioned above occur at regular intervals—specifically these accented inflections are spaced five notes apart, then three, two, to one. This mimics the large

scale 5:3:2:1 prolational scheme that governed the mensuration canon in Section III (see Fig. 8).

**Fig. 8, Spacing of Violin II Ostinato (mm. 173 – 183)**



The arrival at m. 187 serves as a coda of sorts to finish out the piece. The trumpet gets a statement of the troped melody from Section II, with various short doublings (first in the horn, then in the flute and oboe, then trombone, etc.) that recalls the timbral modulation from the same section. The most dramatic element is like the counter-melody that is present in octaves in the string section. This melodic idea is rife with full, long glissandi that give an added dramatic effect to this last section. These glissandi, however dramatic, have been prepared throughout the piece. Recall the harmonic glissandi in the opening section (m. 3, 5 and 9 in violin II), the quarter tone glissandi in the horns and upper strings (mm. 7 - 17), the glissando that is part of the melody in Section II (mm. 49, 54 and 63, violin I and viola), the long glissandi in the beginning of Section IV (m. 160, violin II and bass), to the bass harmonics glissandi in mm. 173 – 184. This section brings these glissandi from mere ornamental gestures to full-on motivic components.

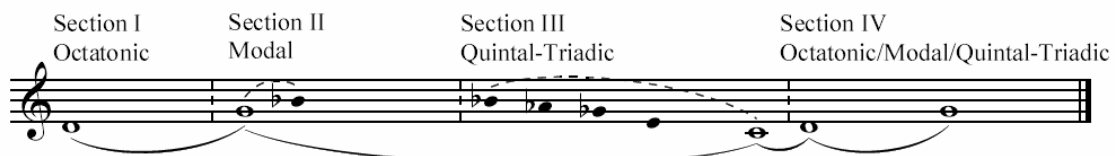
The final section is underpinned by the chorale from the mensuration canon, though not in any exacting manner. The music in the last section utilizes salient harmonic gestures and progressions (most notably, the quintal structures that resolve to triadic material, see m. 196 and 202) that are found in the chorale in a completely

through-composed manner. This chorale material pairs well with the melody from Section II, which governs the melodic and dramatic interest to the end of the piece.

The final chord, rooted in G, is intended to recall (gesturally, not harmonically), the octatonic chord from m. 41. This chord is less tightly constructed, and follows a more acoustical kind of arrangement—wide intervals on the bottom, smaller intervals near the top, with more complicated harmonic series members appearing at the upper regions of the chord.

That the final section ends in G is no surprise, there is a large scale tonal plan at work in the piece. Section I and the beginning of Section IV are tightly linked, sharing several salient gestural elements (pedal notes, triplet divisions, etc.) as well as centric pitch (D). Section II is solidly in G, with a brief diversion to Bb (beginning in m. 55). The whole tone construction of Section III culminates in C, which has the effect of serving as the area of tonal emphasis in the section. The graph below shows these kinds of large scale relations; note that the Bb diversion in Section II prepares the first statement of the mensuration canon subject at the beginning of Section III (both are in Bb).

**Fig. 9, Overall Tonal Center / Large Scale Voice Leading Diagram**



## ***Conclusion***

It is my hope that this work represents more than a catalogue of procedures from two eras of music. Most importantly, the work was intended to convey a progression of musico-dramatic events that unfold in an aesthetically satisfying manner, As I stated in the beginning, I hope this music passes the “influence of immaturity” theory test and that any anxiety present only serves to propel my compositional voice forward into new artistic understanding and competencies. The techniques employed are just that; these in themselves do not make a piece. Their organization of the musical material, however, hopefully contributes to a larger sense of formal structure, organization and, ultimately, musical expression.

### *works cited*

- Atlas, Allan W. *Renaissance Music: Music In Western Europe, 1440 – 1600*. New York: W.W. Norton, 1998.
- Carter, Elliot. *Eight Etudes and a Fantasy*. New York: Associated Music Publishers, 1950.
- Cramer, Alfred. “Schoenberg’s *Klangfarbenmelodie*: A Principle of Early Atonal Harmony.” *Music Theory Spectrum* Vol. 24, No. 1 (2002): 1-34.
- Kostka, Stefan. *Materials and Techniques of Twentieth Century Music*. Upper Saddle River, NJ: Prentice Hall, 1999.
- Rzewski, Frederick. *Coming Together*. Arhaus: Werner Icking Music, 1971.
- Schnittke, Alfred. *A Schnittke Reader*. Bloomington, IN: Indiana University Press, 2002.
- Schoenberg, Arnold. *Theory of Harmony*. Berkely, CA: University of California Press, 1978.
- Straus, Joseph. *Remaking the Past: Musical Modernism and the Influence of the Tonal Tradition*. Cambridge, MA: Harvard University Press, 1990.
- Yudkin, Jeremy. *Music in Medieval Europe*. Upper Saddle River, NJ: Prentice Hall, 1989.

# grafted hymnologies

*transposed score*

*for orchestra*

Anthony Suter  
(2008)

**Tense, but spacious, open** ♩ = 96

[illegible]

**Tense, but spacious, open** ♩ = 96

The musical score for "The Great Wall" by John Williams is presented for five instruments: Violin I, Violin II, Viola, Violoncello, and Bass. The score is in 5/4 time and consists of 12 measures. The key signature is one flat (B-flat). The score includes various dynamic markings and performance instructions. Violin I and Violin II both start with a *fp* (fortissimo piano) dynamic. Violin II has a *sfz* (sforzando) marking in measure 4 and 8, and a *gl.* (glissando) marking in measure 12. Viola has a *f* (forte) marking in measure 4 and a *p* (piano) marking in measure 6. Violoncello has a *div.* (divisi) marking in measure 4 and a *gl.* marking in measure 12. Bass has a *fp* marking in measure 4. The score also includes a note that "\* indicates to gliss to highest artificial harmonic" and a second ending marked "II." in measure 10.

10

10

Vln. I

Vln. II

Via.

Vc.

Bass



15

Fls.

Obs.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

field drum

15

Vin. I

Vin. II

Via.

Vc.

Bass

20

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

20

Vin. I

Vin. II

Vla.

Vc.

Bass

25

Fls. *mp* *f* *f*

Obs. *fp* *mp* *f* *f*

B♭ Cl. *mp* *f* *f*

Bsns. *fp* *mp* *f* *f*

Hrns. I & II *fp* *fp* *f*

Hrns. III & IV *fp* *fp*

Tpts. *f*

Tbns. I & II

Bs. Tbn.

Tuba

Timp. *p* *f*

Perc. I *pp* *ff*

Perc. II

25

Vln. I *p* *f*

Vln. II *p* *f*

Vla. *p* *f*

Vc. *p* *f*

Bass *p* *f*

30

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

30

Vln. I

Vln. II

Vla.

Vc.

Bass



Out of time, freely, very slowly

41

Fls. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Obs. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

B♭ Cl. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Bsns. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Hrms. I & II *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Hrms. III & IV *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Tpts. *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Tbns. I & II *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Bs. Tbn. *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Tuba *p*  $\triangleleft$  *mf*  $\triangleright$  *p*

Timp. *pp*  $\triangleleft$  *ff*  $\triangleright$  *pp*

Perc. I *pp*  $\triangleleft$  *ff*  $\triangleright$  *pp* *medium gong*

Perc. II *pp*  $\triangleleft$  *ff*  $\triangleright$  *pp* *small gong* *p*

Out of time, freely, very slowly

41

Vln. I *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Vln. II *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Vla. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Vc. *p*  $\triangleleft$  *ff*  $\triangleright$  *p*

Bass *p*  $\triangleleft$  *ff*  $\triangleright$  *p* *practice mute on*

Slower; flowing softly  $\text{♩} = 48$ 

45

Fls. *pp*  $\text{mf}$  *pp* *pp*  $\text{mf}$  *pp* *pp*  $\text{mf}$  *pp*

Obs. *pp* *pp*

B $\flat$  Cl. *pp*  $\text{mf}$  *pp* *pp* *pp* *pp*

Bsns. *pp*  $\text{mf}$  *pp*

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I finger cymbals *mp* *sfz* medium gong sus. cymbal (scrape) *sfz*

Perc. II crotales *mp* small gong

45 Slower; flowing softly  $\text{♩} = 48$

Vln. I *p* *mf* *p*

Vln. II *div.* *p* *mf* *p*

Vla. *p* *mf* *p*

Vc. *div.* *p* *mf* *p*

Bass

**l.**



58

Fls. *pp* *mf* *pp* *pp* *mf* *pp*

Obs. *pp* *pp* *mf* *pp* *mf* *pp* *pp*

B♭ Cl. *pp* *mf* *pp* *mf* *pp* *pp*

Bsns. *pp* *pp* *mf* *pp*

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I *chimes* *sus. cymbal* *chimes*

Perc. II *crotales* *p* *mf* *small gong*

58

Vin. I *mf*

Vin. II *mf*

Vla. *mf*

Vc. *mf*

Bass

Measures 58-62 are in 4/4 time. The score includes woodwinds (Flutes, Oboes, B♭ Clarinet, Bassoons), brass (Horns I & II, Horns III & IV, Trumpets, Trombones I & II, Baritone Trombone, Tuba), strings (Violins I & II, Viola, Violoncello, Bass), and percussion (Percussion I with chimes, suspended cymbal, and chimes; Percussion II with crotales, p, mf, and small gong). Dynamics range from *pp* to *mf*. The woodwinds and strings have melodic lines, while the brass and percussion provide harmonic support.

64

Fls. *mf* *pp*

Obs. *mf* *pp*

B♭ Cl. *mf* *pp*

Bsns. *mf* *pp*

Horns I & II *pp* *mp* *pp* (Horn I only)

Horns III & IV *pp* *mp* *pp* (Horn III only)

Tpts. I. *pp* *mp* *pp* *st. mute* *mp* *pp* (harmon mute (stem in))

Tbns. I & II *pp* *st. mute*

Bs. Tbn. *pp*

Tuba *pp*

Timp. *pp*

Perc. I finger cymbals *sfz* medium gong

Perc. II crotales *sfz*

64

Vln. I *mp* *mf*

Vln. II *mp* *mf*

Vla. *mp* *mf*

Vc. *mp* *mf*

Bass *mp* *mf*

70

70

Vln. I

*f*

ten.

*mp*

Vln. II

*f*

*mp*

unis.

Vla.

*f*

ten.

*mp*

*o*

Vc.

*f*

*mp*

*o*

Bass

76 *solo*

Obs. *mf* *f* *mf*

Tpts. *pp* *mf* *pp* *st. mute* *pp* *st. mute* *mp* *pp* *open*

Perc. I

76

Vln. I *pp*

Vln. II *pp* *div.*

Vla. *pp*

82 *Slightly faster, with gravity* ♩ = 72

Obs. *mp*

Tpts. *mp* *pp* *vibraphone*

Perc. I *f* *crotales*

Perc. II *f*

82 *Slightly faster, with gravity* ♩ = 72

Vln. I *p* *static, non-dim. / non-cresc.*

Vln. II *p* *static, non-dim. / non-cresc.* *III.*

Vla. *p* *static, non-dim. / non-cresc.*

Vc. *practice mute* *gl.* *p* *static, non-dim. / non-cresc.*

Bass *practice mute* *gl.* *p* *static, non-dim. / non-cresc.*

91

Perc. I

Perc. II

91

Vln. I

Vln. II

Vla.

Vc.

Bass

97

Fis.

Obs.

B♭ Cl.

Bsns.

Perc. I

Perc. II

97

Vln. I

Vln. II

Vla.

Vc.

Bass

105

Fls.

Obs.

B♭ Cl.

Bsns.

Perc. I

Perc. II

105

Vln. I

Vln. II

Vla.

Vc.

Bass

*pp*

*pp*

*pp*

*pp*

*f*

*f*

II.

II.

114

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I&II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

This block contains the musical notation for measures 114 through 117 for the woodwind and percussion sections. The instruments listed are Flutes (Fls.), Oboes (Obs.), B♭ Clarinets (B♭ Cl.), Bassoons (Bsns.), Horns I & II (Hrns. I&II), Horns III & IV (Hrns. III & IV), Trumpets (Tpts.), Trombones I & II (Tbns. I & II), Bass Trombone (Bs. Tbn.), Tuba, Timpani (Timp.), Percussion I (Perc. I), and Percussion II (Perc. II). Measures 114-117 show complex woodwind passages with many slurs and ties. Dynamics of *mf* and *p* are indicated. The percussion parts feature rhythmic patterns with accents.

114

Vln. I

Vln. II

Vla.

Vc.

Bass

This block contains the musical notation for measures 114 through 117 for the string section. The instruments listed are Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (Bass). Measures 114-117 show sustained string textures with some melodic movement in the lower strings. Dynamics of *mf* and *p* are indicated.

122



133

Fls. *pp*

Obs. *pp*

B♭ Cl. *pp*

Bsns. *pp*

Hrns. I & II *f* *mp*

Hrns. III & IV *f* *mp*

Tpts. *f* *mp*

Tbns. I & II *f* *mp*

Bs. Tbn. *f* *mp*

Tuba *f* *mp*

Timp.

Perc. I

Perc. II

133

Vln. I

Vln. II

Vla.

Vc.

Bass

143

Gradually getting faster ..... (to ♩ = 96)

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I&II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

bass drum

tam tam

p

f

fp

ff

mf

143

Gradually getting faster ..... (to ♩ = 96)

Vin. I

Vin. II

Via.

Vc.

Bass

practice mute off

practice mute off

ff

152

Faster, as before (♩ = 96)

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

152

Faster, as before (♩ = 96)

Vln. I

Vln. II

Vla.

Vc.

Bass

158

Fis.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

158

Vln. I

Vln. II

Vla.

Vc.

Bass

*ff* *3*

*ff* *3*

*ff* *3*

*ff* *3*

*p* *ff*

*gl.* *ff*

*st. mute* *fp* *ff*

*st. mute* *fp* *ff*

*st. mute* *fp* *ff*

*f*

*field drum* *3*

*f* *p* *ff*

*gl.* *fp* *ff*

*f* *p* *ff*

*f* *p* *ff*

*tutti* *ff*

*fp* *f* *fp* *f* *fp*

164

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

164

Vln. I

Vln. II

Vla.

Vc.

Bass

*ff*

*mf*

*fp*

*f*

*p*

*ff*

*pizz.*

*arco*

lowest drum to G

[illegible]

play a double stop on the G & D strings while running your finger up and down the D string to sound the natural harmonics; the harmonics should vary in speed throughout the passage. so that each player is playing at a different, constantly varying, speed

176

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

chimes

*f*

This block contains the musical score for measures 176 through 180, and the first four measures of a new system. The instruments listed are Flutes, Oboes, B♭ Clarinets, Bassoons, Horns I & II, Horns III & IV, Trumpets, Trombones I & II, Bass Trombone, Tuba, Timpani, Percussion I (chimes), and Percussion II. Measures 176-180 are mostly rests for all instruments. At measure 179, the time signature changes from 5/4 to 4/4. In the new system, measures 1-4, Percussion I plays a chime pattern. Percussion II plays a complex rhythmic pattern with triplets and accents. The other instruments have rests.

176

Vln. I

Vln. II

Vla.

Vc.

Bass

This block contains the musical score for measures 176 through 180, and measures 5 through 8 of the new system. The instruments listed are Violin I, Violin II, Viola, Violoncello, and Bass. Measures 176-180 show Violin I and II playing melodic lines with slurs. Violin II has many triplets. Viola, Cello, and Bass have rests. In the new system, measures 5-8, Violin I and II continue their melodic lines. Viola and Cello play sustained notes with slurs. The Bass plays a rhythmic pattern of eighth notes.

182

This musical score page contains measures 182 through 186. The instrumentation includes Flute (Fls.), Oboe (Obs.), B♭ Clarinet (B♭ Cl.), Bassoon (Bsns.), Horns I & II (Hrns. I & II), Horns III & IV (Hrns. III & IV), Trumpets (Tpts.), Trombones I & II (Tbns. I & II), Bass Trombone (Bs. Tbn.), Tuba, Timpani (Timp.), Percussion I (Perc. I), Percussion II (Perc. II), Violin I (Vin. I), Violin II (Vin. II), Viola (Via.), Violoncello (Vc.), and Bass.

**Measures 182-186:**

- Fls., Obs., B♭ Cl., Bsns.:** Enter in measure 184 with a triplet of eighth notes (G4, A4, B4) marked *ff*. The Flute and Oboe have a grace note on G4. The B♭ Clarinet and Bassoon have a grace note on F4. The Flute and Oboe have a triplet of eighth notes (C5, B4, A4) in measure 185.
- Tbns. I & II, Bs. Tbn., Tuba:** Enter in measure 184 with a half note (G2) marked *fp*. In measure 185, they play a half note (F2) marked *f*.
- Perc. I:** Plays a half note (G4) in measure 184, marked *f*. In measure 185, it plays a half note (F4) marked *f*.
- Perc. II:** Plays a half note (G4) in measure 184, marked *f*. In measure 185, it plays a half note (F4) marked *f*.
- Vin. I:** Plays a half note (G4) in measure 184, marked *div.*. In measure 185, it plays a half note (F4) marked *ff*.
- Vin. II:** Plays a half note (G4) in measure 184, marked *div.*. In measure 185, it plays a half note (F4) marked *ff*.
- Via.:** Plays a half note (G4) in measure 184, marked *div.*. In measure 185, it plays a half note (F4) marked *ff*.
- Vc.:** Plays a half note (G4) in measure 184, marked *div.*. In measure 185, it plays a half note (F4) marked *ff*.
- Bass:** Plays a half note (G4) in measure 184, marked *div.*. In measure 185, it plays a half note (F4) marked *ff*.

**Measures 187-191:**

- Fls., Obs., B♭ Cl., Bsns.:** Continue with the triplet of eighth notes (G4, A4, B4) marked *ff*. The Flute and Oboe have a grace note on G4. The B♭ Clarinet and Bassoon have a grace note on F4. The Flute and Oboe have a triplet of eighth notes (C5, B4, A4) in measure 188.
- Tbns. I & II, Bs. Tbn., Tuba:** Continue with the half note (G2) marked *fp*. In measure 188, they play a half note (F2) marked *f*.
- Perc. I:** Continue with the half note (G4) marked *f*. In measure 188, it plays a half note (F4) marked *f*.
- Perc. II:** Continue with the half note (G4) marked *f*. In measure 188, it plays a half note (F4) marked *f*.
- Vin. I:** Continue with the half note (G4) marked *div.*. In measure 188, it plays a half note (F4) marked *ff*.
- Vin. II:** Continue with the half note (G4) marked *div.*. In measure 188, it plays a half note (F4) marked *ff*.
- Via.:** Continue with the half note (G4) marked *div.*. In measure 188, it plays a half note (F4) marked *ff*.
- Vc.:** Continue with the half note (G4) marked *div.*. In measure 188, it plays a half note (F4) marked *ff*.
- Bass:** Continue with the half note (G4) marked *div.*. In measure 188, it plays a half note (F4) marked *ff*.



[illegible]

193

Fls.

Obs.

B♭ Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

193

Vln. I

Vln. II

Vla.

Vc.

Bass

199

Fls.

Obs.

Bs. Cl.

Bsns.

Hrns. I & II

Hrns. III & IV

Tpts.

Tbns. I & II

Bs. Tbn.

Tuba

Timp.

Perc. I

Perc. II

199

Vln. I

Vln. II

Vla.

Vc.

Bass